

HiCN Households in Conflict Network

The Institute of Development Studies - at the University of Sussex - Falmer - Brighton - BN1 9RE

www.hicn.org

Women and Girls at War: “Wives”, Mothers, and Fighters in the Lord’s Resistance Army

Jeannie Annan, Christopher Blattman, Dyan Mazurana, and
Khristopher Carlson

HiCN Working Paper 63

October 2009

Abstract: Data from Uganda challenge conventional notions about the role of females during and after war. Women and girls recruited by the LRA play active roles and are not passive victims. We show how LRA treatment of females—especially strict rules against civilian rape and the use of forced marriage—serves an instrumental purpose, enhancing control of the forces and protection from HIV. Finally, in contrast to conventional beliefs, we find that only a minority of females exhibit serious psychosocial reintegration difficulties, whether psychological distress or persistent community and family rejection. Abduction also has little adverse impact on their education and economic activity, although this is largely because of the tragic dearth of opportunities for all females. Evidence from a growing set of cases suggests that these patterns may be of general relevance, and imply need for a shift in post-conflict policy towards females in war.

Keywords: Armed conflict, Civil conflict, Household welfare, Transmission mechanism, Coping mechanism, Remittances

JEL Classification: E2, I3, H5, H7, Z1

Acknowledgements: We thank Erin Baines, Neil Boothby, Sverker Finnström, Olushola Ismail, Stathis Kalyvas, Edward Miguel, Rebecca Nielsen, Andrew Rasmussen, Mareike Schomerus, Stephanie Schwarz, Elizabeth Stites, Michael Wessells, Cornelius Williams, Elisabeth Wood, Keith Wright and participants in the World Bank HD Unit and the Yale OCV seminars. For data collection we thank Roger Horton, Kristen DeRemer, Godfrey Okot, our enumerators, and AVSI. Data collection and analysis was funded by UNICEF Uganda with assistance from the John D. and Catherine T. MacArthur Foundation and the International Development Research Center. Bernd Beber, Robert Blair, Pia Raffler, and Aditi Sen provided excellent research assistance. This paper builds on two policy reports: an analysis of programming for females for UNICEF Uganda (Annan, et al. 2008a) as well as a Feinstein International Center analysis of legal systems that address violence perpetrated within forced marriage (Carlson and Mazurana 2008).

Copyright © Jeannie Annan, Christopher Blattman, Dyan Mazurana, and Khristopher Carlson 2009

Females fight in the majority of armed conflicts, yet the conflict literature focuses mainly on men (McKay 2005, McKay and Mazurana 2004). The iconic image in war is a young man armed with an AK-47. Young women are typically depicted as victims: mourning dead male family members, fleeing and searching for food, struggling to care for a child, or sexually abused (Cohen 2009, Coulter 2008, Onyango, et al. 2005, Ross 2003, Theidon 2007). This relegation to the status of vulnerable victims drives policy-making at the global level, donor funding at the country level, and program design on the ground. To scrutinize these stereotypes, this paper analyzes interview evidence and surveys from more than 1,300 men and women aged 14 to 35 in northern Uganda, hundreds of whom were abducted by the Lord's Resistance Army (LRA). We critically examine the most common images, especially females' roles inside the LRA, the practice of forced marriage and "sexual slavery", and the alleged reintegration challenges for fighters, wives, and mothers.

One objective is to correct the record on females in this war. Women and girls are neither passive victims nor regular fighters, but something in between. They are sexually abused, but almost exclusively within the confines of a 'forced marriage' to a rebel commander. Meanwhile, rape of civilians outside of these forced relationships is rare.

To better understand of the logic of wartime sexual violence, we also consider LRA practice in comparative perspective. We argue that the LRA cannot be dismissed as an irrational outlier (as is customary). Rather, the LRA has much in common with disciplined, ideologically-committed groups like the Tamil Tigers of Sri Lanka. Abduction and forced marriage, combined with prohibitions on sex out of marriage, are effective tools for creating social cohesion and maintaining control when material resources are low. This analysis fleshes out the growing literature on the logic behind different 'repertoires of violence' across armed groups (Kalyvas 2006, Wood 2009).

Last, we use the LRA case to challenge the conventional, pessimistic view on female post-war reintegration. While almost all females report serious family and community problems upon return, the vast majority is accepted by their families, and relations improve further over time. Meanwhile, in education and economic activity, women and girls returning from the LRA look similar to their non-abducted peers. Only 'forced mothers', or those who bore children to a rebel commander, have

difficulty returning to school as compared to their peers. The absence of general educational and economic impacts of abduction is probably a reflection of the poverty of *all* women's and girls' rights and opportunities in northern Uganda—abducted or not. The findings suggest that post-conflict policy boost its focus on building educational and economic opportunities for all females.

1. Women and girls at war: evidence and stereotypes

For many years, national programs for disarmament, demobilization, reinsertion and reintegration (DDRR) excluded the majority of women and children associated with fighting forces (Schroeder 2005). DDRR planners are accustomed to thinking of women as victims of war, with young girls in particular portrayed as the ultimate victim in need of rescue (Kingma 2002). Yet broader work on war shows females to be active agents: they make choices, possess critical perspectives of their situations, and organize in response to those situations (ICRC 2001, Rehn and Johnson-Sirleaf 2002, UN 2002). Several scholars have begun to assemble narratives of women and girls as combatants—in El Salvador, Columbia, Eritrea, Guatemala, Nicaragua, Sierra Leone, Sri Lanka, Uganda and elsewhere (e.g. Alison 2003, Luciak 2001, Viterna 2006, Wood 2009, Wood 2008). These studies describe the wide range of women's and girls' roles in armed groups, and emphasize that many females are soldiers and some perpetrate the same violence as males (Brett 2002, Brett 2004, Cohen 2009, Corbin 2008, Machel 1996, McKay and Mazurana 2004).

Women and girls returning from war nonetheless receive special attention from aid agencies. Programs are regularly predicated on the belief that women and particularly girls returning from armed groups are more 'vulnerable' (i.e., poor and ostracized) than their male counterparts, and that they need more and specialized assistance for reintegration (Corbin 2008, De Watteville 2002, Knight and Özerdem 2004). The most vulnerable women, in this view, are the sexually abused, forced wives, and those who bore children to rebels (McKay 2004, McKay, et al. 2006, Onyango, et al. 2005). They are thought less likely to marry or find economic livelihoods, and together with their children, to have high rates of rejection and stigmatization by their families and communities—with many forced to leave their communities (McKay, et al. 2006, Nordstrom 1991).

These fears are not baseless. Gender-based violence harms physical and reproductive health (Fischbach and Herbert 1997) and females are more likely to have post-traumatic and depressive symptoms (Tolin and Foa 2006). Economic harm is also plausible, as time in an armed group is time away from schooling and the accumulation of skills and capital. Blattman and Annan (forthcoming) find just such a gap in health, education, and income among males abducted into the LRA, just as other economists have found higher poverty and mortality among male conscripts in the U.S. and Europe (Angrist 1998, Angrist 1990, Angrist and Krueger 1994, Hearst, et al. 1986, Imbens and van der Klaauw 1995). All of these studies, however, concern men alone.

Not all accounts are so pessimistic, however. Several scholars challenge the view that all females involved in armed groups are sexually abused (Brett 2002, Keairns 2003, McKay and Mazurana 2004). Wood (2009, 2006) in particular describes the wide variation of sexual violence according to armed groups' different agendas and norms. Indeed, in some cases women's and girls' roles in armed groups are seen as paths to gender equality (Alison 2003, Mazurana 2004).

A growing body of ethnographic work also takes an optimistic view of reintegration, and argues that resilience rather than disabling psychological trauma is the norm among young ex-combatants (e.g. Boothby, et al. 2006, Shepler 2005, Wessells 2006). Such work also reveals the complex impact of forced relationships in armed groups. In Sierra Leone, some forced wives described their relationship with a commander as a protective factor in the armed group, as they were given food and protected from sexual abuse from multiple men (Park 2006). In Uganda, Allen and Schomerus (2006) observed that some forced wives exhibited more confidence and sense of entitlement than other abducted youth, and Fox (Fox 2004) described those who had children with the rebels as having more access to basic needs in the LRA. Clearly all women are not vulnerable victims alone.

2. The war in northern Uganda

The war dates from at least 1988, when a spiritual leader named Joseph Kony assembled the remnants of several failed insurgent groups into a new guerrilla force, the LRA. Economic power historically rested in the south of Uganda and political and military power in the north (Omara-

Otunnu 1994). In 1986, however, rebels from the south overthrew a government and army dominated by a northern ethnic group, the Acholi. Several Acholi guerrilla forces initially resisted the takeover, but for the most part settled for peace or were defeated by 1988. A handful of these fighters refused to settle, however, and joined forces with Kony (also an Acholi) to continue the fight (Allen 2005, Doom and Vlassenroot 1999).

The decision to continue fighting was an unpopular one, and the LRA commanded little public support. With little popularity and virtually no material resources, the LRA took to looting homes for supplies and abducting youth to serve as fighters, servants and ‘wives’. LRA activity from 1988 to 1993 was fairly low-scale. In 1993 and 1994, however, Sudan’s government began to supply the LRA with weapons and territory upon which to build bases—support that enlarged and invigorated an otherwise small and weak LRA. Abduction from 1995 to 2004 was large-scale and widespread, with 60,000 to 80,000 youth estimated to have been taken by the LRA for at least a day (Annan, et al. 2006, Pham, et al. 2007). By 2004 the rebels weakened and abductions all but ceased. The most recent round of peace talks with the government of Uganda began in 2006, but collapsed in 2008.

3. Women and girls in the LRA

We base our analysis on quantitative and qualitative data collected from 2005 to 2007. From October 2005 to March 2006 we conducted a representative survey of male youth (ages 14 to 30) in eight rural sub-counties in the districts of Kitgum and Pader, followed by a similar survey of females (ages 14 to 35) in 2007. We randomly selected respondents from a retrospective sample frame of youth living in the region before 1996: 881 male youth and 857 female youth.² Sampling was stratified by sub-county and abduction, over-sampling the formerly abducted. Nearly half had

² To develop this frame we randomly chose 1,162 households from U.N. World Food Programme lists compiled in 2002. 88% of these households were found, and enumerators worked with them to develop a roster of all youth in the household in 1996—a year easily recalled by households as the date of the first election since 1980, and one that pre-dates 85% of abductions in these Districts.

migrated from their original village, and we tried to track each to their current location. We located 741 of the 881 males (84%) and interviewed 619 of the 857 females (72%).³

We selected 30 males and 21 females non-randomly from the sample for in-depth qualitative interviews.⁴ We also conducted eight individual interviews outside the sample with formerly abducted young women in an NGO ‘reception center’ for returning abductees. Finally, we held interviews with seven reception center social workers and 15 LRA commanders or junior officers. Questions addressed daily life; relationships with family, husband or domestic partner, and children; LRA abduction and experiences; and experiences of returning from the LRA. The qualitative research allowed theories to emerge from raw data inductively (Charmaz 2006, Glaser and Strauss 1967). The interviews were open-coded, and emergent themes informed the quantitative analysis in developing questions and explaining findings.

Patterns of abduction and release

Females were abducted at roughly half the rate as males; 26% of the population of female youth (aged 14 to 35) and 47% of male youth experienced abduction by the LRA. Lengths of abduction

³ Three factors increased female attrition: (i) the time elapsed since the 2005 roster; (ii) greater migration due to marriage; and (iii) by late 2006 the displaced population had begun to shift to more dispersed resettlement camps. Women were more likely to return from abduction, however; just 4% of females did not return compared to 20% of males, nearly all of whom can be presumed perished.

⁴ The qualitative sample was selected to include variability in current age, length and age of abduction, war experiences, level of psychological symptoms, and level of social reintegration (based on answers from the quantitative survey), and hence is not statistically representative of the quantitative sample. 21 individual interviews with females were audio taped and transcribed in Luo and then translated into English (19 young women plus one brother and one aunt when respondent not found). Thirteen individual interviews were transcribed from detailed field notes (12 females and one respondent’s parents who were caring for the woman’s children).

ranged from a day to twelve years, averaging 11.0 months for surviving females and 8.4 months for males. 54% of females were abducted for more than two weeks and 16% were kept for over a year.⁵

Youth were typically taken by small roving groups of LRA rebels conducting raids on homesteads. From their Sudanese bases, rebels ventured into Uganda for weeks at a time in groups of roughly 15 fighters. Raiding parties had two aims: raiding homesteads along their path for food and recruits and (less often) ambushing government forces. Abduction parties were under instruction to release only young children and older adults, but to keep all adolescent and young adult males.

Such raids and abductions tended to be indiscriminate. Interviews with the leaders of LRA raiding parties suggest that they did not target particular households for male abductees. Typical of East Africa, rural Acholi households live in relatively isolated homesteads in their fields, and small rebel bands moved among these households without regard for their characteristics. The survey data bear out these claims; male abduction is independent of observed pre-war household characteristics, including wealth (land and livestock), parent's education, occupation, and death (see Table 1).⁶

Unlike adolescent males, adolescent females were often left behind by raiding parties. The abduction of women was driven in part by variation in commanders' demand for wives; several abductees and LRA officers explained that orders for more or fewer women typically came down from Kony himself (see also Carlson and Mazurana 2008), while the demand for male abductions was comparably steady. Abduction was also related to characteristics of individual girls. Our interviews suggest that the LRA targeted girls based on physical appearance—selecting more “beautiful” girls. They were also slightly more likely to target females with more educated mothers (see Table 1).

⁵ Comparisons across males and females reflect a difference in the year of the interview as well as gender differences. Here and throughout the remainder of the paper, we use conditional mean differences and regression to compare male and female experiences, adjusting for differences in age profiles, location, pre-war characteristics, and differences in abduction and war experiences. These methods will cancel out any measurement error common to both genders.

⁶ Abducted males differ only by year of birth (as expected) and household size—a difference driven by households greater than 25, perhaps because small bands were hesitant to raid large groups.

Each year of mother's education is associated with a 2% increase in the probability of abduction. In general, however, the act of abduction itself was not highly selective; as with males, female abduction was unrelated to household wealth, occupation or parental death.

In general, the LRA screened recruits after rather than before abduction. Here again we see a preference for males; females interviewed were released in 19 percent of cases, versus 13 percent of males. We examine the determinants of release in Table 2. Abduction age is the most robust determinant of release for females; an additional year of age is associated with a 1 percentage point higher probability of release ($p < 0.01$). We see this relationship in Figure 1, a running mean of release probability by age: the probability is steady at 0.10 for girls under 13, increasing afterwards.

Our interviews suggest that rebels divided females into three groups: prepubescent girls, young adolescents, and those thought to have had prior sexual relationships. Prepubescent girls were kept as babysitters to be given later as 'wives', while young adolescents were kept to be forcibly married as soon as possible. Older adolescents and young women, seen as potential carriers of sexually transmitted infections and HIV, were more seldom given as 'wives' and were more often released.

Analysis of LRA abduction by Beber and Blattman (2009) suggest a second reason that younger abductees were preferred: they were less likely to run away. The younger the age at abduction, the more likely an abductee (male or female) reported that they felt loyal to the LRA, the less likely that they ran away of their own volition, and the more difficulty they reported in escape. Younger abductees may have also been more easily indoctrinated.

Rebels were least likely to release educated females. Each additional year of education at the time of abduction is associated with a 4 percentage point lower probability of release (Table 2). Combined with the correlation between mother's education and abduction, this suggests an LRA focus on educated women. One woman, abducted at age 12, recalled that "They asked my mother where I go to school, and in what class." Earlier interviews suggest that more educated girls were

sought by LRA for nursing, midwifery, radio communication, record-keeping, and logistical support (Carlson and Mazurana 2008, Carlson, et al. 2006).⁷

Among survivors, 7% of women and girls not released were captured by the Ugandan army. The remainder escaped. Table 2 explores the correlates of abduction length among surviving females. Several correlations stand out. In particular, more educated females were more likely to escape sooner, averaging over a month less time with the rebels for each extra year of education. Older women also experienced shorter abductions. These women may have escaped in the heat of battle, run away in a momentary lapse of supervision, or been rescued by the government army.

Female roles

Females served in a variety of roles in the rebel group, often starting in a servile capacity. Over time they took on fighting roles and, ultimately, were forced to marry and bear children. Females abducted for longer than two weeks reported that their main role was either as a porter (27%) or cook/water collector (37%). Together, 69% reported a supportive role, including farming, childcare, water collection, cook, or porter. 16% reported a combat role, whether a fighter, fighter's aid or spy. Pre-abduction characteristics—including age of abduction, education, wealth, and orphaning—are unrelated to becoming a fighter (regressions not shown).

More than one in ten abducted females reported that their primary or secondary role was as a fighter. This figure likely underestimates the number of females who fought, although it captures those who fought as a main role. Asked differently in the male survey, 55% of males were given a gun, and 45% of males reported sleeping with a gun, a sign of being considered a fighter. (A signif-

⁷ Situational factors also influenced release. For example, before 2002 most abductees were taken to the rebel bases in southern Sudan. After the destruction of those bases in 2002 (Operation Iron Fist I), the rebels were forced to keep moving, often in small groups, and the accumulation of wives became, at times, less strategic. Notably, the practice of taking forced wives increased again when the LRA established bases within eastern DRC in 2006-2008 (Human Rights Watch 2009).

icant number of women also held authority in the LRA: 4% of females abducted over two weeks reported that they were in a position to give orders to other fighters, compared to 15% of males.)

Yet females and males say they committed similar levels of violence. The survey asked all respondents, abducted or not, about 25 specific *Violent acts experienced*, including 6 *Violent acts witnessed*, 6 *Violent acts received*, 8 *Violent acts perpetrated* by the respondent, and 5 *Violent acts upon the family* of the respondent. Roughly a quarter were forced to beat, cut or murder other abductees, civilians, or even family members in order to bind them to the group, to reduce their fear of killing, and to discourage disobedience. Overall, females experienced 11 incidents of violence on average—two fewer than males. They reported perpetrating the same number of violent acts as males (2.3 acts), including many of the worst acts: killing civilians, soldiers, or friends and family.

Forced marriage

Women were principally recruited not to become fighters, but to become ‘wives’ and mothers. In qualitative interviews, former abductees explained that women carried firearms principally for defensive action, and that a woman or girl was no longer called for battle once she became pregnant for the first time. The LRA systematically used slavery and sexual and physical violence within ‘forced marriage’. Forced marriages are coercive relationships without valid consent of the female and her family, and have the traditional characteristics of shared domicile, bearing of children, domestic responsibilities, exclusivity, and sex. The relationship is familial, and children are born and raised by abducted mothers and their captor husbands. These forced marriages are highly regulated and controlled by the LRA’s top leadership, with females being distributed to males based on the males’ rank and the physical attributes desired by the particular male commander (although lower ranking commanders and fighters do not appear to have much say regarding which female is given to them by higher ranking commanders). There was seldom a ceremony, and never rituals resembling traditional marriage practices. Mistakenly, females forced into marriage with members of the LRA are commonly referred to as “sex slaves” (Carlson and Mazurana, 2008).

In our sample, 22% of all abducted females were given as wives, including 45% of all those abducted over two weeks.⁸ Among forced wives, 25% were ‘married’ within nine days of abduction, 50% within three months, and 75% within a year. Half bore children from the LRA. Not surprisingly, the longer a female stayed with the rebels, the more likely she was forced to become a ‘wife’ and mother—abduction length is the strongest and most robust predictor of forced marriage (see Table 3). More educated abductees were also married sooner—1.5 months faster for each year of education. Yet while more educated women were more likely to be abducted and became wives more quickly, the incidence of forced marriage itself does not increase with education levels (Table 3). Girls in school at the time of abduction, however, were more likely to be given as ‘wives’. Schooling seems to have increased the value of women and girls as ‘wives’, for the same reasons outlined above: their assistance of the rebel force in supporting medical care, communication, and planning.

In qualitative interviews, young women described a range of feelings. Some described “harsh” and “abusive” men, while others felt they were treated well. One woman explained, “We got along well. You know, he was abducted like me.” Despite varied feelings, most forced wives said that they wanted nothing to do with their “husband from the bush” (Carlson and Mazurana 2008). Fewer than 5% of all forced wives stayed with their LRA husband upon return from captivity.

4. Understanding LRA sexual violence in comparative perspective

Forced marriages of girls and women by armed groups have been documented historically and in recent conflicts, including Algeria, the Democratic Republic of Congo, East Timor, Kashmir, Liberia, Myanmar, Sierra Leone, and elsewhere (Carlson and Mazurana 2008, Coomaraswamy 1997, CSUCS 2004, Verhey 2004). Even so, at first glance the LRA’s behavior seems peculiar and even unique. While they fail to govern territory, they strictly and effectively govern social relations in the group. Kony instituted a highly controlled use of sexual violence: sex was permitted only within forced marriage; there was little rape of unmarried abductees and non-abducted civilians; and viola-

⁸ Previously, it was estimated that half of abducted females were given to commanders as wives (Fox 2004, McKay and Mazurana 2004), as women escaping quickly were likely uncounted.

tions were severely punished, often with death. Survey data on sexual violence are always problematic, but the pattern in northern Uganda is unmistakable: asked about lifetime violence, 93.5% of forced wives said they were sexually abused or forced to have sex with a man, compared to 6.9% of never-married abductees, and 1.7% of non-abductees. In contrast, the LRA's physical violence against civilians was extreme; rebels killed, maimed, and burned many victims to instill terror in the population and dissuade them from government collaboration (Branch 2008, Doom and Vlassenroot 1999, Van Acker 2004, Vinci 2005).

The absence of sexual violence is remarkable because the opportunity for rape was high; small units led by mid-level commanders travelled alone for weeks, habitually raiding homes with young women and girls at night. Disincentives for sexual violence were also low: the LRA had largely lost civilian support through the use of indiscriminate killings and mutilations. This suggests that within the group there were strong norms or sanctions against sexual violence against civilians.

This 'repertoire of violence'—female participation in the armed group, extensive physical violence against civilians, and minimal rape of civilian populations—has parallels to several groups, including the Tamil Tigers in Sri Lanka (Wood 2009) and the People's Liberation Army (PLA) of Nepal (Mazurana, et al. 2009). While the Tigers have crucial differences (notably voluntary participation, and relative gender equality) Wood argues that their puritanical code of conduct and harsh punishment regime was an effective means of command and control; harsh training and socialization was the basis a disciplined cadre, rather than selective recruitment. The effectiveness was reinforced by a strong command structure and existing cultural mores against non-marital sexual relations. Similarly, using examples from southwestern Uganda and Peru, Weinstein (2007) argues that such harsh discipline and socialization is a common method of screening out less committed cadre, and thereby maintaining a more disciplined force.

We see several parallels to the LRA: the screening and socialization of recruits using harsh punishments, strict codes of behavior, and a puritanical creed. Discipline and indoctrination was essential due to the decentralized operation of mobile units. It too was reinforced by cultural norms, including prohibitions of rape outside marriage, and the accumulation of many 'wives' by powerful

elder males. The centralized distribution of ‘wives’ also offered a system of privilege and remuneration within the armed group. Those with rank and power within the LRA chose multiple women and girls and gave women and girls to those with lower ranks as a reward.

Disciplined sexual violence within marriage may not be the sole path to group cohesion. Cohen (2009) sees a related but opposite force at work in Sierra Leone: the group commission of gang rape of men and women (sometimes by women) in order to bind forced recruits closer to the group. We see the same dynamic in the LRA with non-sexual violence against civilians; abductees were routinely forced to commit a heinous act to convince them they could never return home. LRA strictures against sex outside of marriage, however, may have been a more effective tool for building control and discipline in a more ideologically committed (essentially charismatic) armed force.

In addition to command and control, strict norms surrounding sexual violence are also consistent with the control of STIs and HIV transmission. The LRA lost several commanders to AIDS early in the conflict, including Kony’s original second-in-command, Komakec Omona (Baines 2009). The preference for young sexually inexperienced females for retention within the LRA is consistent with this theory.

Finally, the absence of sexual violence outside of ‘marriage’ may have had ideological and spiritual roots. Among the Acholi, Kony is widely accepted as a powerful spirit medium and (by some) a prophet. The dictates and rules proclaimed by the Holy Spirit are numerous, detailed, and sometimes mercurial (Behrend 1999) and the restrictions on sexual violence could be reinforced by a (possibly idiosyncratic) spiritual norm. A report by Ugandan civil society organizations quotes Acholi elders, who explain that one aim of forced marriage and child-bearing was to “populate the ‘new Acholi nation’” (CSOPNU 2004). If so, it seems likely that these ideological norms reinforce the instrumental uses of forced marriage and control of sexual violence, contributing to the LRA’s effectiveness and longevity as a mobile guerrilla force.

5. Women's and girls' reintegration: Myths and realities

The nature and determinants of reintegration success remain poorly understood, especially for women and girls. At a minimum, reintegration implies rejoining, and being accepted by, family and community (Michael 2006), as well as building a livelihood (Kingma 1997a). In the case of women and girls, policymakers place special emphasis on recovery from sexual violence and the risks of related family and community rejection (MDRP and UNIFEM 2005, UNIFEM 2004).

To reach these goals, national reintegration efforts offer an increasingly standard package: assistance in family reunification; cash and in-kind compensation; and education and income generating projects, in particular vocational training (DPKO 1999, Ginifer 2002, Knight and Özerdem 2004, UNIFEM 2004). More ambitious reintegration schemes have sought to achieve human development: psychological adjustment, social and political participation, and achievement of economic potential (Kingma 1997b), although such goals are seldom part of the official DDDR process.

As noted above, however, national DDDR programs have tended to ignore females, irrespective of their roles. Advocacy groups and NGO programs likewise emphasize victimhood, and highlight the special vulnerability and the widespread family and community rejection of females formerly with armed groups (especially those who return with children). In the remainder of this paper we reexamine these priorities and programs using the evidence from women and girls in Uganda.

The survey collected a range of self-reported data on various dimensions of well-being, including six aspects of return into the community and 11 indicators of well-being. On return, we asked all abductees whether they *Passed through a reception center* (female mean: 44%; male: 52%). We also asked whether they *Returned home* (100%; 99%) or *Returned to school* after their longest abduction (39%; 59%). We also have an indicator for whether the abductee reported *Family problems ever* (18%; 7%), including insults, blame, or aggression, as well as whether they experience these same *Family problems now* (7%; 3%). We also asked about similar problems in the community, *Community problems ever* (44%; 32%) and *Community problems now* (6%; 3%).

For well being, we measured education and economic outcomes, including: *Years of education attained* (4.4; 7.2); an *Indicator for literacy* (33%; 72%); a proxy for average gross *Daily earnings*

(2303 UGX, or \$1.28; 2806 UGX, or \$1.56); an *Employment indicator* for at least one day of work in the past month (83%; 69%); a *Skilled work indicator* for youth engaged in a trade, or small business (4%; 10%); and an *Injury indicator* for any health problem that inhibits the ability to perform light physical labor for a half day (6%; 13%).

We also measured psychosocial outcomes, including: an additive *Index of social support* composed of 17 types of support reported in the past month, such as someone lending her items, or helping her find work (4.7; 5.6); an *Index of family connectedness* ranging from 0 to 6 based on whether a youth reported greater family comfort, closeness and lack of conflict (3.7; 5.1); and a *Group member* indicator capturing membership in at least one of eight kinds of community groups (54%; 46%). Finally, we developed an additive index of *Psychological distress* using 17 self-reported symptoms of depression and traumatic stress.⁹ The average female has an index value of 4.8 and the average male a value of 4.0; the highest value recorded is 13.7 for females and 15 for males. The average index value indicates a range of profiles, from a youth experiencing 4 to 5 symptoms (i.e., nightmares, difficulty concentrating) frequently to having 12 to 15 symptoms on rare occasion.

Assessing impacts: empirical strategy

Combatants and fighters are usually unlike non-combatants and non-fighters in unobservable ways, and so any comparison will conflate the impacts of war with pre-existing differences that led the youth to join or be selected by the armed group or force. Non-fighters offer a reasonable counterfactual group, however, when the determinants of recruitment are observed and measured (Rubin 1978; Rosenbaum and Rubin 1983; Imbens 2004). In most wars, such stringent conditions would not hold. In the LRA, however, volunteers were virtually unknown, eliminating bias from self-selection. As discussed above, males were abducted indiscriminately without selection based on

⁹ From an adapted version of the Northern Ugandan Child and Youth Psychosocial Adjustment Scale by MacMullin & Loughry (2002). Each symptom is scaled between zero and one according to its reported intensity. For each of the 19 symptoms, “often” receives a full value of 1, “sometimes” 0.66, “rarely” 0.33, and “never” a zero. Questions were selected for inclusion in the index of distress additively if, in a factor analysis, they shared a loading over 0.3.

household characteristics. Blattman and Annan (forthcoming) use this assumption of exogenous abduction and the males data to assess the causal effects of abduction on male youth.

Similarly, we use four empirical strategies to examine the impacts of war and reintegration success. First, we compare return outcomes by gender in Table 4. Second, we estimate the impacts of abduction on long-term well being via a regression of each outcome on an abduction indicator and observed determinants of selection into abduction. The results, pooled as well as for males and females separately, are displayed in Table 5. Third, to identify what reintegration impacts were largest at the time of return and what ones tend to diminish over time, we regress each outcome on *Years since return from abduction*, controlling for pre-war covariates and other abduction experiences (see Table 6). Fourth, we are interested in the effect of these war experiences themselves, and so we examine correlations between each return and reintegration outcomes and war experiences such as length of time recruited, violence, and role with the rebel group (including leaders, fighters, and forced wives and mothers) in Tables 7 and 8.

The evidence suggests that female abduction may be more selective than that of males. Some of these selection criteria, like education, can be measured and controlled for. Other, unobserved forms of selection such as physical beauty may persist, however. If such unobserved selection criteria are also correlated with well-being, then the impacts of abduction in Table 6 will be biased. Hence we must interpret these estimates with caution.

Results

We examine two views of female reintegration that dominate post-conflict policy: first, that female returnees are more vulnerable than their male counterparts—less integrated socially, poorer, and more psychologically distressed; and second, that females who are forced to marry and bear children during abduction are particularly worse off upon return.

Initial return challenges tend to improve

Return experiences are generally more positive than imagined, although family and community acceptance does take time (see Table 4). Females and males return home in almost all cases. In the

beginning, some face difficulties with at least one family member or neighbor, including insults, fear, or aggression. 18% of females and 7% of males report at least one problem within the family, while 44% of females and 32% of males report at least one problem within the community. Females were 15 percentage points more likely to report family problems ($p \leq 0.05$) but not more likely to report community trouble (substantively or significantly). For the majority of returnees, however, these troubles were temporary. Just 7% of females and 3% of males reported that family problems persisted—improvements of 59% and 65% respectively ($p < 0.01$). Similarly, just 6% of females and 3% of males report persistent community problems—improvements of 87% and 80% ($p < 0.01$).

Females are at least twice as likely to report persistent family and community problems as males. Moreover, in qualitative interviews, those who reported problems tended to focus on difficulty with a single family member or neighbor, not all, and other relationships were generally described as positive. These interviews also suggest that those who returned to extended family, rather than parents, had more strained relationships because of scarce food and resources.

Little evidence of social rejection; rejection and distress among those exposed to the most violence

Looking at Table 5, neither formerly abducted males nor females display levels of social support different from their peers or each other. But abducted females report 6% less family connectedness than non-abducted females ($p \leq 0.10$) and abducted males 8% less connectedness ($p \leq 0.01$)—i.e., more quarrels or fewer feelings of comfort and closeness. Both males and females are as likely to belong to a community group as their non-abducted peers.

If social impacts of abduction are small, then we should observe little improvement since time of return. Indeed, social integration also shows little variation with time back (see Table 7). Among females, time since return is associated with no significant increase or decrease in social support, family connectedness, marriage or group membership. The pattern is similar for males, although they report a slight gain in social support over time ($p < .10$).

While social impacts appear small, we observe adverse psychological impacts of abduction. Abducted females report an average of 18% more symptoms of psychological distress than their

non-abducted peers ($p \leq 0.05$), and abducted males 15% more symptoms ($p \leq 0.01$). The difference between genders is not significant.

Higher levels of distress are concentrated rather than broad-based. At the median, abducted/non-abducted differences are small. Rather, serious symptoms of distress are concentrated in a minority of youth whom are disproportionately abductees. Abducted females are 1.7 times more likely than non-abducted to be in the top quartile of the distress index ($p < 0.01$). For instance, nearly 42% of female abductees report nightmares “sometimes” or “often” versus 25% of non-abducted youth.

Why do we see a concentration of psychological distress and family and community troubles in a minority? One answer is the concentration of war violence. In Tables 7 and 8, we correlate return outcomes and well-being with self-reported war experiences. Among women and girls, violent acts experienced and violence acts perpetrated are the strongest and most robust predictors of family and community problems ever and currently (Table 7, Panel B). Each additional act of violence experienced is associated with a 0.01 to 0.02 increase in the likelihood of family and community rejection; each additional act of violence perpetrated is associated with a 0.00 to 0.06 increase in the likelihood of family and community rejection. Given the low levels of persistent family and community problems (for females, 7% and 6%, from Table 4) violence is the primary determinant of persistent problems of rejection. The pattern is similar for males (Table 7, Panel A), although the point estimate on violence perpetrated tends to be significant while that on violence experienced is not.

Turning to distress, in Table 8, we see a similar pattern; violence received and violence perpetrated are major correlates of distress. Among males, each act of violence experienced and perpetrated is associated with a 0.12 and a 0.39 increase in reported symptoms of distress ($p < 0.01$); among females, each act of violence experienced and perpetrated is associated with a 0.35 and a 0.43 increase in reported symptoms of distress ($p < 0.01$). For violence experienced, the difference between the male and female coefficients is statistically significant ($p < 0.01$).

Little evidence of economic losses among female abductees

Labor market and human capital impacts are reported in Table 6. As noted in Blattman and Annan (forthcoming), male abductees experience a 10% drop in education, a 20% drop in literacy and, in large part because of this loss in human capital, a 45% fall in daily earnings and a 38% fall in the likelihood of running a business or a trade. There is no evidence that levels of employment change. Rather, it is the quality and productivity of employment that shifts.

We see no such pattern, however, among females. Rather, the point estimates on education, literacy, employment, skilled work, and injuries are small, *positive*, and not statistically significant. What explains this disparity between male and female abductees? One option is that abduction does adversely impact females, but that their abduction is selective; the women who are abducted and who the LRA attempts to retain are more educated, more entrepreneurial, and healthier, but after returning from abduction they are set back and now no different than their peers. As we saw in Table 1, there is weak evidence that abducted females had mothers with 0.58 more years of education than those of non-abducted females and that the rebels had a tendency to release less educated girls.

While selection could drive the results, other evidence suggests a more depressing explanation: for most women and girls, the alternative to abduction is dismal—low educational investment and few opportunities for skilled employment. If abduction interrupts female accumulation of human and physical capital then we should observe a strong correlation between abduction length and our educational and economic outcomes. Looking at Panel B of Table 8, we see large, negative, and statistically significant correlations between abduction length and education, almost identical to the coefficients on males (in Panel A). This finding seems incompatible with the results in Table 6, where no adverse impacts are found for all abducted females. A possible explanation comes from Table 2, where we observed that educated females tend to escape more quickly—1.3 months more quickly for every extra year of education. The correlation between education and abduction length in Panel B of Table 8 appears to be spurious, driven by the propensity of more educated females to escape. When we control for education at the time of abduction for females, as in Panel C, the cor-

relation between abduction length and educational attainment disappears (although the literacy impact persists in size and significance).

Why would long abductions not lead to lower human capital and incomes among women and girls? Two patterns suggest that, even in the absence of abduction, women and girls may not have been educated. Figure 2 displays the probability of currently being in school among non-abducted youth. Never-abducted females are less likely to be enrolled than males at all ages, although the gap is smallest for the youngest in our sample. Current enrolment understates the historical gap, however. Enrolment among both males and females is high in the displacement camps, and universal primary education (UPE) was only introduced after 1997. Figure 3 displays educational attainment of never-abducted youth. Male attainment is increasing in age, a pattern consistent with continued enrolment in high school among older males. Female attainment falls steeply, especially among the older cohort who did not benefit from UPE. For most females, life at home bore certain resemblances to abduction: withdrawal from school, early marriage and child-bearing.

The impacts of forced marriage

The regressions of return and reintegration outcomes on war experiences include indicators for becoming a forced wife and a forced mother (Tables 7B and 8C). Looking at return experiences (Table 7B), forced motherhood is strongly associated with a lower likelihood of returning to school. Figure 3 shows rates of return to school by age back from abduction. The difference is stark; girls who return without children go back to school at least 80% of the time before the age of 12 (versus 90% of boys). Return to school falls with age; for those returning from abduction at age 18 roughly 40% of girls and 50% of boys return to school. Fewer than 10% of forced mothers return to school, however—only 2 of the 29 females who returned with children resumed their education. According to one respondent, “when I returned I had thoughts of going back to school, but I couldn’t make it because I was already a mother of three children and I could not leave my children alone.” For this reason, forced motherhood (but not forced marriage) is associated with 1.1 fewer years of educational attainment (Table 8C)—a 23% decrease relative to education among other abductees.

Forced marriage and motherhood are not associated with lower rates of family and community acceptance. Our sample size, however, is modest; of 228 abducted women, there 59 forced wives, 29 of whom bore children. Hence we must be careful not to treat the absence of statistical significance as evidence of absence—the confidence intervals include sizeable adverse effects. From Table 8B, forced marriage is associated with 0.78 fewer forms of social support, a 15% decline relative to abductees ($p < 0.10$). There is no statistically significant difference on the family connectedness, marriage, or group membership outcomes, however, and psychological distress is actually significantly *lower* among forced wives than other abductees (after controlling for violence).

Childbearing in the LRA

A major humanitarian concern is the rejection of children born of forced unions by the mother's kin. Qualitative interviews reveal that some community members called such children names, particularly when the children were troublesome, such as when fighting with other children. Yet most forced mothers said their families welcomed their children. Social workers and returned females also explained that the parents of forced mothers took care of their grandchildren, as is customary when a female has a child out of wedlock.¹⁰ Grandparent acceptance of children does not imply a problem-free relationship. Even so, the custom increases the female's opportunity to remarry.

Of the females that remarried, several said their new husband treated their LRA-born children more poorly than his own biological children. Social workers described this as typical behavior of men toward children from other men, rather than directed toward children from the LRA specifically (Annan, et al. 2008b). In a minority of cases, some mothers stated that the new husband outright rejected the child born in captivity; various reasons were given, including not wanting such a child in the man's clan, not wanting to include the child in the inheritance of his land and property, and fear of the LRA captor 'husband' coming to re-claim the child (and possibly mother). When they

¹⁰ Similar to other patriarchal societies, children born within unions sanctioned under customary law are considered as part of the man's lineage. When a child is born as a result of abduction and rape, as in the LRA, the child belongs to its maternal grandfather's clan (Carlson and Mazurana 2008).

did bring their children into the new union, mothers reported that their children born due to captivity were given less access to food, medicine and school fees than other children in the household.¹¹

6. Discussion and conclusions

Our analysis yields several important conclusions. First, the roles that women and girls play in the LRA challenge notions that females are only sexual victims, or that they play the same roles as males. In many ways, the LRA reproduced the gender differences (and inequalities) in daily life by using females predominantly as wives, mothers, and servants.

Second, the LRA's repertoire of sexual violence is not the product of a mad theology. Rather, the strict governance of sexual relations within the group (and the forbidding of civilian rape) served an instrumental purpose, augmenting the LRA's command and control of diffuse mobile units, and helping to curb the spread of HIV/AIDS. This case clarifies the rationale behind a common repertoire of violence: the controlled use of rape and marriage within a forced group to generate social cohesion when alternatives resources are low.

Third, the LRA illustrate that civilian rape is not inevitable in war; even poor and isolated groups are capable of exercising control. Hence courts have stronger case for holding responsible those groups that do engage in sexual violence.

Fourth, in northern Uganda, there is little evidence that abductees return as damaged social pariahs. Families have been especially welcoming to their abducted children, and the majority of female abductees are accepted by their families and communities. When they do have troubles, it is typically with some family and community members rather than all, and in the majority of cases the problematic relations have improved with time.

Last, female abductees are not more disadvantaged than male abductees; rather, females in general are more disadvantaged than males. Educational and economic opportunities are sufficiently poor that the time with the rebels, however traumatic, has little impact on long-term females' educa-

¹¹ See also Robinson and McKay (2005) on the complexity of mothers' (and new husbands') relationships with children born in captivity in armed groups.

tion and livelihoods, which are already poor in the war-torn north. An important exception is the inability of most forced mothers to return to school.

Our findings have clear policy implications for post-conflict aid in northern Uganda and potentially beyond Uganda. Our analysis places emphasis on the systems that make women and girls more vulnerable rather than the exceptional vulnerability of females in the wake of war. Large-scale programs that increase access to education and livelihoods for all females, rather than programs that focus solely on those returning from the armed group, are required after war. A notable exception may be educational programs designed for young mothers who do not return to school, yet here too the schooling challenge is one faced by most all young mothers, abducted or not.

Turning to psychosocial care, we see that family and community troubles, along with emotional distress, are concentrated in a significant minority of females and males, disproportionately (but not all) former abductees. Programs, which historically have been broad-based, seeking to serve all former abductees, ought to move to more specialized, targeted approaches. These policy proposals are outlined in detail in Annan et al. (2008a).

Northern Uganda is a specific context. Indeed, the results could differ where females join armed forces or groups voluntarily for nationalist or other motives, or where women have more opportunity for equality within armed groups, such as in the LTTE in Sri Lanka (Alison 2003) or the PLA in Nepal (Mazurana et al. forthcoming). The results may also differ in contexts where family and communities are not so welcoming of their children. We note, however, that a growing number of qualitative studies tell a similar story of resilience rather than rejection and distress among youth returning from fighting forces and groups (e.g. Boothby, et al. 2006, Shepler 2005, Wessells 2006).

We conclude with words from one of the young mothers we interviewed, who returned after five years with the LRA along with a child, a severe injury and the news that her parents had both been killed. After remarrying and having another child, she stunned us with her ability to strive for a better life for both of her children. This is the advice she offered to parents of girls who return from the LRA: “Take good care of her. It is not the end of her life. She should forget what happened. Be

a good example for her. She is still surviving. She should not see this as the end of her life. She can still continue.” How she continues, of course, depends largely on the opportunities available to her.

7. References

- Alison, Miranda. "Cogs in the Wheel? Women in the Liberation Tigers of Tamil Eelam." *Civil Wars* 6, no. 4 (2003): 37-54.
- Allen, Tim. *War and Justice in Northern Uganda: An Assessment of the International Criminal Court's Intervention*. London: Crisis States Research Centre, Development Studies Institute, London School of Economics, 2005.
- Allen, Tim, and Mareike Schomerus. "A Hard Homecoming: Lessons Learned from the Reception Center Process in Northern Uganda." USAID & UNICEF, 2006.
- Angrist, Joshua D. "Estimating the Labor Market Impact of Voluntary Military Service Using Social Security Data on Military Applicants." *Econometrica* 66, no. 2 (1998): 249-88.
- . "Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records." *The American Economic Review* 80, no. 3 (1990): 313-36.
- Angrist, Joshua D., and Alan B. Krueger. "Why Do World War II Veterans Earn More than Nonveterans?" *Journal of Labor Economics* 12, no. 1 (1994): 74-97.
- Annan, Jeannie, Christopher Blattman, and Roger Horton. "The State of Youth and Youth Protection in Northern Uganda: Findings from the Survey of War Affected Youth." Kampala, Uganda: UNICEF, 2006.
- Annan, Jeannie, Christopher Blattman, Khristopher Carlson, and Dyan Mazurana. "The State of Female Youth in Northern Uganda: Findings from the Survey of War Affected Youth (SWAY)." Boston: Feinstein International Center, 2008a.
- Annan, Jeannie, Moriah Brier, and Filder Aryemo. "From “Rebel” to “Returnee”: Daily Life and Reintegration for Youth in Northern Uganda." Yale University, unpublished working paper, 2008b.
- Baines, Erin. Personal communication, 12 April 2009.

- Beber, Bernd, and Christopher Blattman. "The Industrial Organization of Rebellion: The Logic of Forced Labor and Child Soldiering." *Unpublished working paper, Yale University* (2009).
- Behrend, Heike. *Alice Lakwena & Holy Spirits: War In Northern Uganda 1985-97*. Columbus: Ohio University Press, 1999.
- Blattman, Christopher, and Jeannie Annan. "The Consequences of Child Soldiering." *Review of Economics and Statistics* (forthcoming).
- Boothby, Neil, Jennifer Crawford, and Jason Halperin. "Mozambique child soldier life outcome study: Lessons learned in rehabilitation and reintegration efforts." *Global Public Health* 1, no. 1 (2006): 87-107.
- Branch, Adam, ed. *Exploring the Roots of LRA Violence: Political Crisis and Politicized Ethnicity in Acholiland*. Edited by Tim Allen and Koen Vlassenroot, *The Lord's Resistance Army: War, Peace and Reconciliation in Northern Uganda*: Unpublished book manuscript, 2008.
- Brett, Rachel. "Girl Soldiers: Challenging the Assumptions." New York: Quaker United Nations Office, 2002.
- . "Girl Soldiers: Denial of Rights and Responsibilities." *Refugee Survey Quarterly* 23, no. 2 (2004): 30-37.
- Carlson, Khristopher, and Dyan Mazurana. "Forced Marriage within the Lord's Resistance Army, Uganda." Medford, MA Feinstein International Center, Tufts University, 2008.
- Carlson, Khristopher, Dyan Mazurana, Elizabeth Stites, and Godfrey Orach Otobi. "Young Mothers, Forced Marriage and Children Born in Captivity within the Lord's Resistance Army in Northern Uganda." 2006.
- Charmaz, Kathy. *Constructing Grounded Theory*. London: Sage Publications, 2006.
- Cohen, Dara Kay. "The Role of Female Combatants in Armed Groups: Women and Wartime Rape in Sierra Leone (1991-2002)." In *Annual Convention of the International Studies Association*. New York, NY, 2009.

- Coomaraswamy, Radhika. "Further promotion and encouragement of human rights and fundamental freedoms, including the question of the programme and methods of work of the Commission." New York: United Nations Commission on Human Rights, 1997.
- Corbin, Joanne. "Returning home: resettlement of formerly abducted children in Northern Uganda." *Disasters* 32, no. 2 (2008): 316-35.
- Coulter, Chris. "Female fighters in the Sierra Leone war: challenging the assumptions?" *Feminist Review* 88, no. 1 (2008): 54-73.
- CSOPNU. "Nowhere to Hide: Humanitarian Protection Threats in Northern Uganda." Kampala: Civil Society Organisations for Peace in Northern Uganda, 2004.
- CSUCS. "Child Soldiers Global Report 2004." London: Coalition to Stop the Use of Child Soldiers, 2004.
- De Watteville, Nathalie. "Addressing Gender Issues in Demobilization and Reintegration Programs." Washington: The World Bank, 2002.
- Doom, Ruddy, and Koen Vlassenroot. "Kony's Message: A New Koine? The Lord's Resistance Army in Northern Uganda." *African Affairs* 98, no. 390 (1999): 5.
- DPKO. "Disarmament, Demobilization and Reintegration of Ex-Combatants in a Peacekeeping Environment: Principles and Guidelines." New York: Lessons Learned Unit, Department of Peacekeeping Operations, United Nations, 1999.
- Fischbach, Ruth L., and Barbara Herbert. "Domestic violence and mental health: Correlates and conundrums within and across cultures." *Social Science & Medicine* 45, no. 8 (1997): 1161-76.
- Fox, Mary-Jane. "Girl Soldiers: Human Security and Gendered Insecurity." *Security Dialogue* 35, no. 4 (2004): 465.
- Ginifer, Jeremy. "Reintegration of Ex-Combatants." 2002.
- Glaser, Barney G., and Anselm L. Strauss. *Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine Publishing Company, 1967.

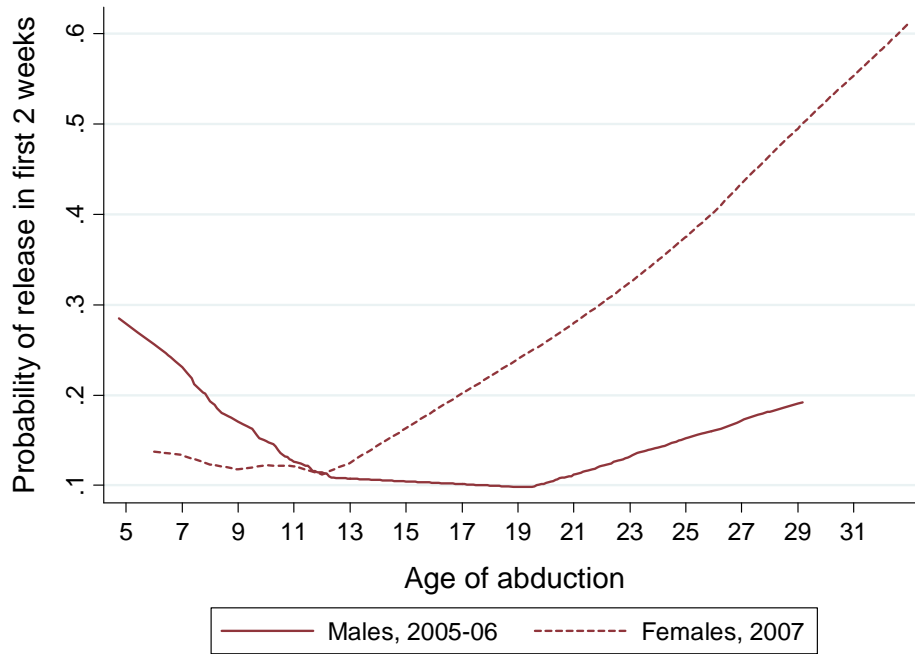
- Hearst, Norman, Thomas B. Newman, and Stephen B. Hulley. "Delayed effects of the military draft on mortality. A randomized natural experiment." *New England Journal of Medicine* 314, no. 10 (1986): 620-24.
- Human Rights Watch. "The Christmas Massacres: LRA Attacks on Civilians in Northern Congo." New York: Human Rights Watch, 2009.
- ICRC. *Women Facing War*. Geneva: International Committee of the Red Cross (ICRC), 2001.
- Imbens, Guido W., and Wilbert van der Klaauw. "Evaluating the Cost of Conscription in the Netherlands." *Journal of Business & Economic Statistics* 13, no. 2 (1995): 207-15.
- Kalyvas, Stathis N. *The Logic of Violence in Civil War*. New York: Cambridge University Press, 2006.
- Keairns, Yvonne E. "The Voices of Girl Child Soldiers." New York: Quaker United Nations Office, 2003.
- Kingma, Kees. "Demobilization of combatants after civil wars in Africa and their reintegration into civilian life." *Policy Sciences* 30 (1997a): 151-65.
- . "Demobilization, reintegration and peacebuilding in Africa." *International Peacekeeping* 9 (2002): 181-201.
- . "Human Resources Deveopment and Utilization in Demobilization and Reintegration Programs." Bonn International Center for Conversion Paper No. 7, 1997b.
- Knight, Mark, and Alapslan Özerdem. "Guns, Camps and Cash: Disarmament: Demobilization and Reinsertion of Former Combatants in Transitions from War to Peace." *Journal of Peace Research* 41, no. 4 (2004): 499-516.
- Luciak, Ilja A. *After the Revolution: Gender and Democracy in El Salvador, Nicaragua, and Guatemala*. Baltimore, MD: Johns Hopkins University Press, 2001.
- Machel, Graça. "Impact of Armed Conflict on Children." New York: UNICEF, 1996.
- MacMullin, Colin, and Marianne Loughry. *An Investigation into the Psychosocial Adjustment of Formerly Abducted Child Soldiers in Northern Uganda*. Kampala: The International Rescue Committee, 2002.

- Mazurana, Dyan. *Women in Armed Opposition Groups Speak on War, Protection, and Obligations under International Humanitarian and Human Rights Law*. Geneva: Geneva Call and the Program for the Study of International Organization, 2004.
- Mazurana, Dyan, Jeevan Sharma, and Nisha Pandey. "Becoming and being a man in the Maoist movement during the People's War, Nepal." *Unpublished working paper, Feinstein International Center, Tufts University* (2009).
- McKay, Susan. "Girls as "Weapons of Terror" in Northern Uganda and Sierra Leonean Rebel Fighting Forces." *Studies in Conflict & Terrorism* 28, no. 5 (2005): 385-97.
- . "Reconstructing fragile lives: girls social reintegration in northern Uganda and Sierra Leone." *Gender and Development* 12, no. 3 (2004): 19-30.
- McKay, Susan, and Dyan E. Mazurana. *Where Are the Girls? Girls in Fighting Forces in Northern Uganda, Sierre Leone and Mozambique: Their Lives During and After War, Rights & Democracy*. Montréal: International Centre for Human Rights and Democratic Development, 2004.
- McKay, Susan, Malia Robinson, Maria Gonsalves, and Miranda Worthen. "Girls Formerly Associated with Fighting Forces and their Children: Returned and Neglected." In *Coalition to Stop the Use of Child Soldiers*. London, UK, 2006.
- MDRP and UNIFEM. "Taking a Gender-Perspective to Strengthen the Multi-Country Demobilization and Reintegration Program (MDRP) in the greater Great Lakes Region." Kigali, Rwanda: World Bank Multi-country Demobilization and Reintegration Program (MDRP) and UNIFEM, 2005.
- Michael, Sarah. "Reintegration Assistance for Ex-Combatants: Lessons for the MDRP." The World Bank: MDRP Working Paper No. 1, 2006.
- Nordstrom, Carolyn. "Women and War: Observations from the Field." *Minerva: Quarterly Report on Women and the Military* 9, no. 1 (1991): 1-15.
- Omara-Otunnu, Amii. *Politics and the Military in Uganda, 1890-1985*. London: Macmillan in association with St. Antony's College, Oxford, 1994.

- Onyango, Grace, Angelina Atyam, Christopher Arwai, and Gladys Jane Acan. "Girl mothers of Northern Uganda." In *Conference on Girl Mothers in Fighting Forces and their Post-War Reintegration in Southern and Western Africa*. Bellagio, Italy, 2005.
- Park, Augustine S. J. "'Other inhumane acts': Forced marriage, girl soldiers and the special court for Sierra Leone." *Social & Legal Studies* 15, no. 3 (2006): 315-37.
- Pham, Phuong, Patrick Vinck, and Eric Stover. "Abducted: The Lord's Resistance Army and Forced Conscription in Northern Uganda." edited by Berkeley-Tulane Initiative on Vulnerable Populations: Human Rights Center, University of California, Berkeley; Payson Center for International Development, Tulane University, 2007.
- Rehn, Elisabeth, and Ellen Johnson-Sirleaf. *Women, War and Peace: The Independent Experts' Assessment of Armed Conflict on Women and Women's Role in Peacebuilding*. New York: United Nations Development Fund for Women, 2002.
- Robinson, Mary, and Susan McKay. "Conference Report." In *Girl Mothers in Fighting Forces and Their Post-War Reintegration in Southern and Western Africa*. Rockefeller Conference Center, Bellagio, Italy, 2005.
- Ross, Fiona C. . *Bearing Witness: Women and the Truth and Reconciliation Commission in South Africa*. London: Pluto Press, 2003.
- Schroeder, Emily. "Multi-country Demobilization and Reintegration Program (MDRP) Gender Desk Study." Washington DC: World Bank, 2005.
- Shepler, Susan A. "Conflicted Childhoods: Fighting Over Child Soldiers in Sierra Leone." Berkeley: UC Berkeley, 2005.
- Theidon, Kimberly. "Gender in Transition: Common Sense, Women and War." *Journal of Human Rights* 6, no. 3 (2007).
- Tolin, David F., and Edna B. Foa. "Sex differences in trauma and post-traumatic stress disorder: a quantitative review of 25 years of research." *Psychological Bulletin* 132, no. 6 (2006): 959-92.
- UN. "Optional protocol on the involvement of children in armed conflict ", edited by United Nations, 2002.

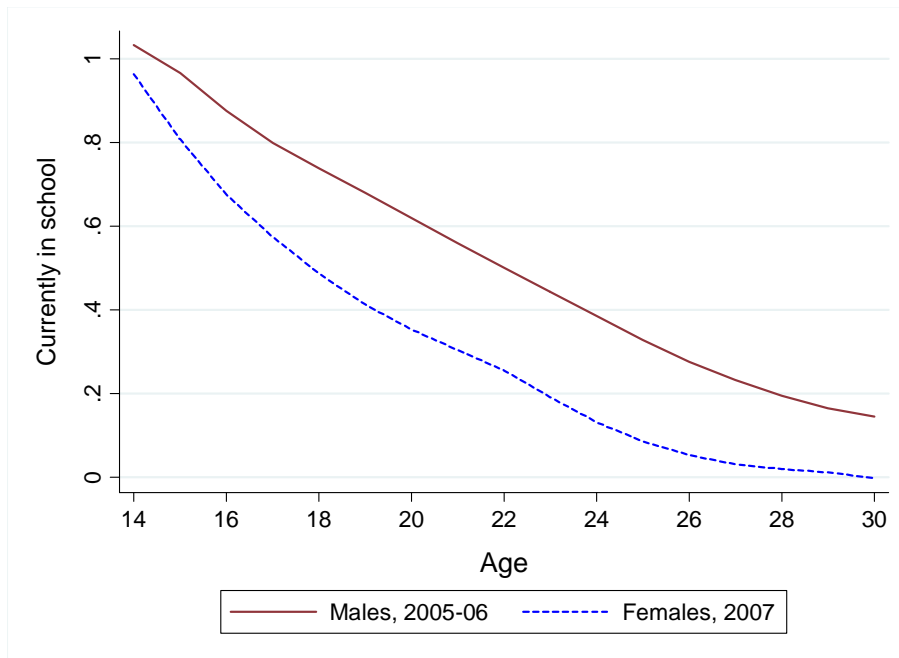
- UNIFEM. "Getting it Right, Doing it Right: Gender and Disarmament, Demobilization and Reintegration." edited by Sarah Douglas and Felicity Hill. New York: United Nations Development Fund for Women, 2004.
- Van Acker, Frank. "Uganda and the Lord's Resistance Army: the new order no one ordered." *African Affairs* 103, no. 412 (2004): 335-57.
- Verhey, Beth. "Reaching the girls: study on girls associated with armed forces and groups in the Democratic Republic of Congo." London: Save the Children UK, 2004.
- Vinci, Anthony. "The Strategic Use of Fear by the Lord's Resistance Army." *Small Wars and Insurgencies* 16, no. 3 (2005): 360-81.
- Viterna, Jocelyn S. "Pulled, Pushed, and Persuaded: Explaining Women's Mobilization into the Salvadoran Guerrilla Army 1." *American Journal of Sociology* 112, no. 1 (2006): 1-45.
- Weinstein, Jeremy M. *Inside Rebellion*. Cambridge: Cambridge University Press, 2007.
- Wessells, Michael. *Child Soldiers: From Violence to Protection*. Cambridge: Harvard University Press, 2006.
- Wood, Elisabeth J. "Armed Groups and Sexual Violence: When Is Wartime Rape Rare?" *Politics & Society* 37, no. 1 (2009): 131.
- . "The Social Processes of Civil War: The Wartime Transformation of Social Networks." *Annual Review of Political Science* 11 (2008): 539-61.
- . "Variation in sexual violence during war." *Politics & Society* 34, no. 3 (2006): 307.

Figure 1: Probability of release, by age of abduction



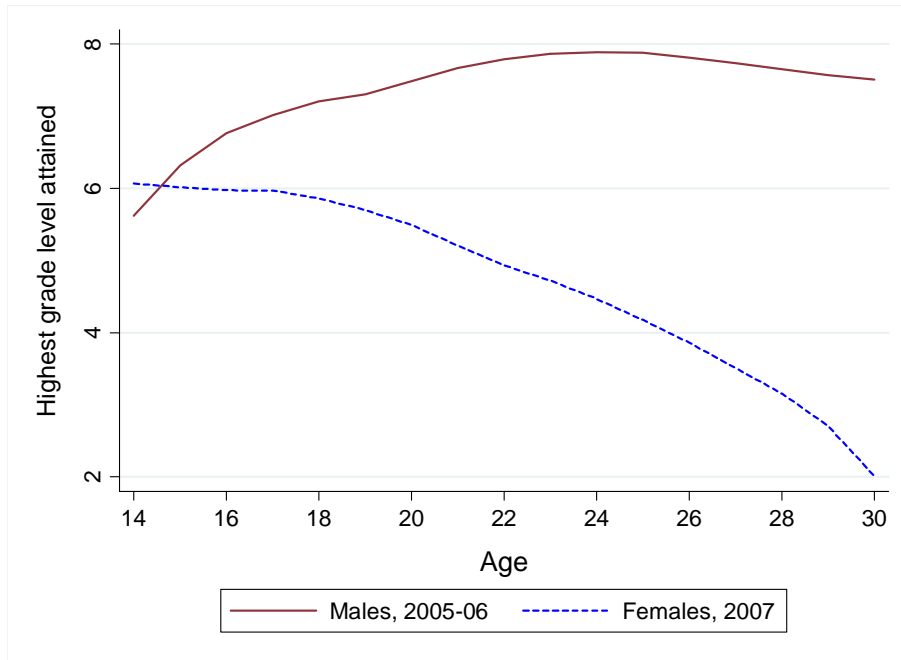
Note: Each line represents a running mean with unit bandwidth.

Figure 2: Probability currently in school, by current age



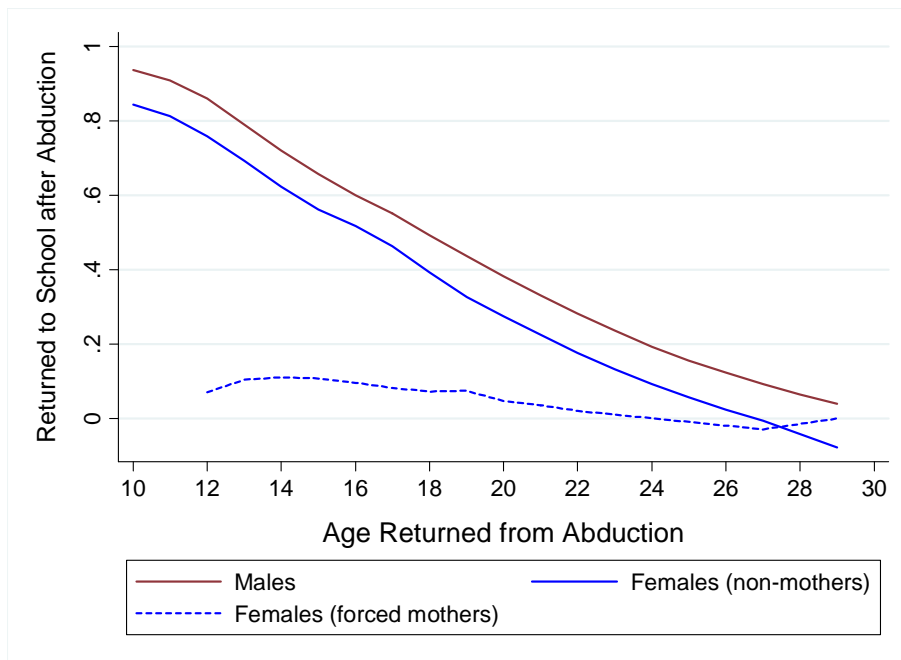
Note: Each line represents a running mean with unit bandwidth.

Figure 3: Educational attainment, by current age



Note: Each line represents a running mean with unit bandwidth.

Figure 4: Probability returned to school after abduction, by age of abduction



Note: Each line represents a running mean with unit bandwidth.

Table 1: Determinants of Abduction (By Gender)

| Pre-war trait | Difference between abducted and non-abducted males | Difference between abducted and non-abducted males | Difference between abducted males and abducted females |
|---------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------|
| Respondent Age | 1.19 [0.42]*** | -0.72 [0.39]* | 1.98 [0.47]*** |
| Indicator for father a farmer | 0.01 [0.02] | 0.04 [0.02] | 0.00 [0.02] |
| Household size in 1996 | -0.58 [0.19]*** | -0.05 [0.34] | -0.34 [0.28] |
| Standard normal index of household wealth in 1996 | 0.07 [0.06] | 0.01 [0.08] | -0.10 [0.07] |
| Father's education | 0.01 [0.26] | 0.32 [0.40] | 1.23 [0.25]*** |
| Mother's education | -0.30 [0.34] | 0.58 [0.21]** | 0.51 [0.27]* |
| Paternal death before 1996 | 0.01 [0.04] | 0.03 [0.03] | -0.08 [0.04]** |
| Maternal death before 1996 | 0.01 [0.02] | -0.01 [0.03] | 0.00 [0.02] |

Each figure is a conditional mean difference. Each is the coefficient on abduction from a regression of the pre-war trait on an abduction dummy and all other pre-war covariates, including location of birth. Robust standard errors are in brackets, clustered by sampling location. All estimates weighted by inverse sampling probabilities and inverse attrition probabilities.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 2: Determinants of Abduction Length and Early Release

| | (1) | (2) | (3) | (4) |
|-------------------------------------------|----------------------------------------------------|----------------------------|------------------------|----------------------------|
| | Dummy for being released in first two weeks | | Months abducted | |
| | Females only | Males & Females | Females only | Males & Females |
| Abduction age | 0.01 [0.00]** | 0.01 [0.00]*** | -0.85 [0.28]*** | -0.67 [0.20]*** |
| Abduction age × Male | | -0.01 [0.01]** | | 0.34 [0.24] |
| Wealth index | 0.00 [0.02] | 0.00 [0.02] | -1.14 [1.29] | -1.04 [1.17] |
| Wealth index × Male | | 0.01 [0.02] | | 1.94 [1.37] |
| Mother's education | -0.01 [0.01] | -0.01 [0.01] | -0.31 [0.36] | -0.34 [0.33] |
| Mother's education × Male | | 0.01 [0.01] | | 0.33 [0.37] |
| Father's education | 0.00 [0.01] | 0.00 [0.01] | 0.81 [0.27]*** | 0.76 [0.26]*** |
| Father's education × Male | | 0.00 [0.01] | | -0.97 [0.33]*** |
| Father died before 1997 | 0.09 [0.06] | 0.06 [0.05] | -0.66 [3.24] | -0.91 [3.17] |
| Father died × Male | | -0.05 [0.06] | | -1.45 [3.30] |
| Mother died before 1997 | 0.21 [0.11]* | 0.12 [0.08] | 4.91 [6.09] | 3.64 [6.42] |
| Mother died × Male | | -0.05 [0.06] | | -4.51 [6.54] |
| Abduction year | 0.00 [0.01] | 0.00 [0.01] | 0.40 [0.50] | 0.21 [0.58] |
| Abduction year × Male | | 0.00 [0.01] | | -0.33 [0.64] |
| Abducted after 2002 (Operation Iron Fist) | 0.05 [0.11] | 0.03 [0.09] | -7.41 [3.77]* | -7.63 [3.80]* |
| Abducted after 2002 × Male | | -0.11 [0.06]* | | 3.50 [4.03] |
| Education at the time of abduction | -0.04 [0.02]** | | -1.34 [0.53]** | |
| In school at the time of abduction | 0.09 [0.09] | | -0.46 [3.57] | |
| Respondent released & held ≤2 weeks | | | -10.99 [1.82]*** | -8.66 [0.97]*** |
| Observations | 278 | 898 | 278 | 898 |

Robust standard errors in brackets, clustered by sampling location

All estimates weighted by inverse sampling probabilities and inverse attrition probabilities

Location of birth dummies are included in regressions but coefficients are not displayed

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 3: Women's roles

| | Was forced wife | Had child from forced marriage |
|-------------------------------------------|-------------------|--------------------------------|
| Age at longest abduction | 0.02 [0.01] | -0.02 [0.03] |
| Education at the time of abduction | -0.02 [0.02] | -0.03 [0.08] |
| In school at the time of abduction | 0.20 [0.06]*** | 0.03 [0.40] |
| Mother dead at time of abduction | -0.04 [0.08] | 0.31 [0.09]*** |
| Father dead at time of abduction | 0.09 [0.10] | 0.33 [0.11]*** |
| Index of household wealth in 1996 | 0.03 [0.04] | -0.10 [0.08] |
| Year of longest abduction | -0.02 [0.03] | 0.01 [0.04] |
| Abducted after 2002 (Operation Iron Fist) | -0.14 [0.18] | 0.19 [0.29] |
| ln(Months Abducted) | 0.14 [0.02]*** | 0.15 [0.03]*** |
| Observations | 143 | 59 |

Robust standard errors in brackets, clustered by sampling location

All estimates weighted by inverse sampling probabilities and inverse attrition probabilities

Location of birth dummies are included in regressions but coefficients are not displayed

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4: Reinsertion outcomes (for youth abducted more than 2 weeks)

| | (1) | (2) | (3) | (4) |
|-----------------------------------|------------------------------|----------------|-------------------------------------------------------|--------------------------------------------------------------------|
| | Sample Mean [Std Dev] | | Adjusted mean difference (Females - Males) | |
| | Females | Males | Adjusted for pre-war covariates | Adjusted for pre-war & abduction covariates |
| Passed through a reception center | 0.44 [0.04] | 0.52 [0.03] | -0.07 [0.04] | -0.03 [0.05] |
| Returned home | 1.00 [0.00] | 0.99 [0.00] | 0.00 [0.01] | -0.02 [0.02] |
| Returned to school | 0.39 [0.04] | 0.59 [0.05] | -0.09 [0.05]* | -0.09 [0.05]* |
| Family problems ever | 0.18 [0.04] | 0.07 [0.01] | 0.03 [0.03] | 0.15 [0.06]** |
| Family problems now | 0.07 [0.03] | 0.03 [0.01] | 0.07 [0.04]* | 0.10 [0.04]** |
| Family problems improved | 0.59 [0.13] | 0.65 [0.10] | -0.29 [0.12]** | 0.05 [0.28] |
| Community problems ever | 0.44 [0.04] | 0.32 [0.03] | -0.07 [0.04]* | -0.03 [0.05] |
| Community problems now | 0.06 [0.02] | 0.03 [0.01] | 0.02 [0.02] | 0.08 [0.05]* |
| Community problems improved | 0.87 [0.04] | 0.80 [0.04] | 0.01 [0.05] | 0.02 [0.12] |

Robust standard errors in brackets, clustered by sampling location

All estimates weighted by inverse sampling probabilities and inverse attrition probabilities

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5: Average Impacts of Abduction (By Gender)

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|-----------------------------------------------------|----------------|-----------------------|----------|-----------------|-----------------------|----------|-----------------------|------|
| | Females (2007) | | | Males (2005/06) | | | Female - Male | N |
| | Non-Abd Mean | Impact of Abduction † | % Change | Non-Abd Mean | Impact of Abduction † | % Change | Impact of Abduction † | |
| <i>Psychosocial outcomes</i> | | | | | | | | |
| Additive index of social support (17 forms) | 4.57 | 0.16 [0.209] | 4% | 5.63 | -0.14 [0.154] | -2% | 0.30 [0.262] | 1247 |
| Index of family connectedness (0 to 6, low to high) | 3.81 | -0.24 [0.122]* | -6% | 5.28 | -0.41 [0.089]*** | -8% | 0.18 [0.149] | 1156 |
| Ever married | 0.45 | -0.05 [0.045] | -12% | 0.32 | 0.09 [0.028]*** | 28% | -0.14 [0.049]*** | 1135 |
| Member of at least one group | 0.55 | -0.04 [0.053] | -7% | 0.45 | -0.01 [0.042] | -2% | -0.03 [0.065] | 1247 |
| Index of emotional distress | 4.46 | 0.79 [0.319]** | 18% | 3.73 | 0.57 [0.206]*** | 15% | 0.23 [0.383] | |
| <i>Labor market and human capital outcomes</i> | | | | | | | | |
| Years of education attained | 4.76 | 0.19 [0.378] | 4% | 7.58 | -0.73 [0.184]*** | -10% | 0.92 [0.425]** | 1247 |
| Literate | 0.39 | 0.02 [0.072] | 5% | 0.78 | -0.16 [0.040]*** | -20% | 0.16 [0.064]** | 1247 |
| Daily earnings | 2486 | -334 [461] | -13% | 3610.34 | -1620 [760]** | -45% | 1286 [919] | 912 |
| Equals 1 if worked in last 4 weeks | 0.79 | 0.04 [0.049] | 5% | 0.66 | 0.03 [0.041] | 4% | 0.01 [0.061] | 1247 |
| Occupation: business/professional | 0.04 | 0.01 [0.031] | 31% | 0.13 | -0.05 [0.020]** | -38% | 0.07 [0.053] | 923 |
| Equals 1 if has a serious injury | 0.07 | 0.00 [0.038] | 3% | 0.09 | 0.10 [0.028]*** | 110% | -0.08 [0.028]*** | 1194 |

Each row represents a separate regression

Robust standard errors in brackets, clustered by sampling location

† Calculated as the coefficient on an abduction dummy variable in a weighted logit regression of the dependent variable on the abduction dummy, age (including the square and cube), location dummy variables, and pre-war household traits. The regression is weighted on inverse selection, sampling, and attrition probabilities

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 6: Average Impacts of Years Since Return (By Gender)

| | (1) | (2) | (3) | (4) |
|------------------------------------------------|---------------------------|------------------|----------------------------|----------|
| | Years since return | | | |
| | Females | Males | Females - Males | N |
| <i>Psychosocial outcomes</i> | | | | |
| Additive index of social support | -0.04 [0.05] | 0.08 [0.04]* | -0.13 [0.06]* | 648 |
| Index of family connectedness | 0.03 [0.04] | -0.01 [0.02] | 0.04 [0.05] | 648 |
| Ever married | 0.00 [0.00] | 0.01 [0.01] | 0.00 [0.01] | 648 |
| Member of at least one group | 0.00 [0.01] | 0.00 [0.01] | -0.01 [0.02] | 648 |
| Index of emotional distress | -0.02 [0.06] | 0.05 [0.04] | -0.07 [0.06] | 648 |
| <i>Labor market and human capital outcomes</i> | | | | |
| Years of education attained | -0.01 [0.06] | 0.14 [0.05]* | -0.15 [0.08] | 648 |
| Literate | -0.03 [0.01]** | 0.00 [0.01] | -0.03 [0.01]* | 648 |
| Daily earnings | 64.63 [66.49] | -6.92 [55.10] | 71.55 [91.47] | 476 |
| Equals 1 if worked in last 4 weeks | -0.01 [0.01] | 0.00 [0.01] | -0.01 [0.01] | 648 |
| Occupation: business/professional | 0.00 [0.01] | 0.00 [0.00] | 0.00 [0.01] | 529 |
| Equals 1 if has a serious injury | 0.02 [0.01] | 0.00 [0.01] | 0.02 [0.01] | 601 |

Robust standard errors in brackets, clustered by sampling location

All estimates weighted by inverse sampling probabilities and inverse attrition probabilities

Location of birth dummies are included in regressions but coefficients are not displayed

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 7: Reinsertion outcomes and war experiences

| | (1) | (2) | (3) | (4) | (5) |
|------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------|-----------------------------------------------|-----------------------------------------------------|--------------------------------------------------|
| | Returned to school after longest-lasting abduction | Equals 1 if reported family problems ever | Equals 1 if report family problems now | Equals 1 if reported community problems ever | Equals 1 if report community problems now |
| Panel A: Males | | | | | |
| Months abducted (total) | 0.00 [0.00] | 0.00 [0.00] | 0.00 [0.00] | 0.00 [0.00] | 0.00 [0.00] |
| Sum of 17 violent acts received, witnessed, or upon family | 0.00 [0.01] | 0.00 [0.01] | 0.02 [0.01] | -0.01 [0.01] | 0.01 [0.00]*** |
| Sum of 8 violent acts perpetrated | 0.02 [0.02] | 0.02 [0.01]** | 0.02 [0.00]*** | 0.04 [0.02]* | 0.01 [0.01]* |
| Led other soldiers | 0.01 [0.12] | 0.01 [0.04] | 0.03 [0.06] | 0.17 [0.12] | 0.02 [0.02] |
| Held and was allowed to keep a gun | -0.14 [0.06]** | 0.04 [0.03] | 0.00 [0.07] | 0.13 [0.07]* | -0.03 [0.02] |
| Observations | 330 | 330 | 230 | 330 | 230 |
| Panel B: Females | | | | | |
| Months abducted (total) | 0.00 [0.00] | 0.00 [0.00] | 0.00 [0.00] | 0.00 [0.00]* | 0.00 [0.00] |
| Sum of 17 violent acts received, witnessed, or upon family | -0.01 [0.01] | 0.02 [0.01]* | 0.01 [0.01]* | 0.02 [0.01]** | 0.02 [0.01]*** |
| Sum of 8 violent acts perpetrated | 0.00 [0.02] | 0.04 [0.01]*** | 0.01 [0.00]* | 0.06 [0.02]*** | 0.00 [0.01] |
| Gave orders to fighters | 0.28 [0.10]** | | | | |
| Reported fighter as a primary or secondary role | -0.19 [0.12] | -0.05 [0.07] | -0.02 [0.02] | -0.03 [0.09] | -0.02 [0.03] |
| Forced wife † | -0.04 [0.09] | -0.07 [0.05] | 0.01 [0.06] | 0.05 [0.07] | -0.04 [0.04] |
| Forced mother † | -0.27 [0.06]*** | -0.09 [0.05] | -0.01 [0.07] | -0.05 [0.11] | 0.10 [0.07] |
| Education at the time of abduction | 0.05 [0.01]*** | -0.01 [0.01] | 0.00 [0.01] | 0.00 [0.01] | 0.01 [0.01] |
| Observations | 228 | 208 | 209 | 228 | 209 |

Robust standard errors in brackets, clustered by sampling location

All estimates weighted by inverse sampling probabilities and inverse attrition probabilities

Year and location of birth dummies and pre-war covariates are included in regressions but coefficients are not displayed

* significant at 10%; ** significant at 5%; *** significant at 1%

† coded as 0 if abducted for less than two weeks

Table 8: Reintegration outcomes and war experiences

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|------------------------------------------------------------|-------------------|----------------------|--------------------|-------------------|--------------------|--------------------|--------------------|-----------------------|--------------------------|-------------------|--------------------|
| | Social support | Family connectedness | Married | Group member | Emotional distress | Education | Literate | Daily earnings | Employed in last 4 weeks | Skilled work | Serious injury |
| Panel A: Males | | | | | | | | | | | |
| Months abducted (total) | -0.01 [0.01] | 0.00 [0.01] | 0.00 [0.00] | 0.00 [0.00] | 0.01 [0.01] | -0.03 [0.01]*** | -0.01 [0.00]** | 14.51 [11.77] | 0.00 [0.00] | 0.00 [0.00] | 0.00 [0.00] |
| Sum of 17 violent acts received, witnessed, or upon family | 0.15 [0.06]** | -0.03 [0.02] | -0.01 [0.00] | 0.01 [0.01] | 0.12 [0.04]*** | -0.05 [0.05] | 0.00 [0.01] | -220.60 [96.31]** | -0.01 [0.01] | 0.00 [0.00] | 0.02 [0.01]** |
| Sum of 8 violent acts perpetrated | -0.01 [0.12] | -0.05 [0.05] | 0.01 [0.01] | 0.00 [0.02] | 0.39 [0.11]*** | 0.15 [0.09] | 0.02 [0.02] | 546.88 [342.69] | 0.02 [0.02] | -0.01 [0.01] | 0.00 [0.01] |
| Led other soldiers | 0.35 [0.56] | -0.08 [0.30] | 0.00 [0.06] | -0.07 [0.13] | -0.35 [0.88] | -0.49 [0.44] | -0.01 [0.15] | 1628.44 [1,850.67] | -0.27 [0.14]* | -0.01 [0.07] | 0.25 [0.10]** |
| Allowed to keep a gun | -0.67 [0.31]** | -0.12 [0.26] | 0.12 [0.03]*** | -0.05 [0.07] | -0.43 [0.46] | -0.88 [0.35]** | -0.16 [0.12] | -1068.05 [905.20] | -0.05 [0.09] | 0.00 [0.02] | 0.02 [0.05] |
| Observations | 458 | 458 | 458 | 458 | 458 | 458 | 458 | 318 | 458 | 458 | 458 |
| Panel B: Females (same covariates as Panel A) | | | | | | | | | | | |
| Months abducted (total) | 0.00 [0.01] | 0.02 [0.01]** | 0.00 [0.00]** | 0.00 [0.00] | -0.02 [0.02] | -0.04 [0.01]*** | -0.01 [0.00]*** | 11.12 [23.39] | 0.00 [0.00]** | -0.01 [0.00]* | 0.00 [0.00] |
| Sum of 17 violent acts received, witnessed, or upon family | 0.05 [0.04] | 0.00 [0.05] | 0.00 [0.01] | -0.02 [0.01] | 0.35 [0.07]*** | 0.03 [0.09] | 0.01 [0.01] | -18.16 [72.20] | -0.01 [0.01] | -0.01 [0.01]** | 0.01 [0.01] |
| Sum of 8 violent acts perpetrated | 0.12 [0.08] | -0.13 [0.10] | 0.02 [0.02] | 0.07 [0.02]*** | 0.44 [0.14]*** | 0.04 [0.16] | 0.02 [0.02] | -177.64 [126.00] | 0.02 [0.01] | 0.02 [0.03] | 0.01 [0.02] |
| Gave orders to fighters | 1.06 [1.24] | 0.09 [0.87] | -0.23 [0.31] | -0.38 [0.15]** | -1.99 [1.31] | -1.46 [2.63] | 0.14 [0.39] | 832.81 [1,315.88] | -0.27 [0.27] | | |
| Reported fighter as a primary or secondary role | -0.50 [0.45] | -0.25 [0.67] | -0.11 [0.12] | -0.09 [0.17] | -1.29 [0.69]* | 0.67 [0.69] | -0.11 [0.18] | 374.56 [1,785.60] | 0.03 [0.06] | | 0.00 [0.09] |
| Forced wife † | -0.75 [0.44] | -0.60 [0.41] | -0.03 [0.10] | -0.17 [0.10]* | -1.25 [0.50]** | 0.00 [0.56] | -0.04 [0.07] | -473.14 [452.65] | 0.03 [0.04] | | -0.07 [0.05] |
| Forced mother † | 0.40 [0.51] | 0.56 [0.51] | -0.19 [0.10]* | 0.17 [0.20] | 0.42 [1.00] | -0.89 [1.02] | 0.01 [0.13] | 1229.48 [885.01] | 0.05 [0.05] | | 0.07 [0.18] |
| Observations | 228 | 228 | 228 | 228 | 228 | 228 | 228 | 191 | 228 | 100 | 161 |
| Panel C: Females (including education at abduction) | | | | | | | | | | | |
| Months abducted (total) | 0.01 [0.01] | 0.01 [0.01]** | 0.00 [0.00] | 0.00 [0.00] | -0.01 [0.02] | 0.00 [0.01] | -0.01 [0.00]*** | 14.30 [23.22] | 0.00 [0.00]** | 0.00 [0.00]*** | 0.00 [0.00] |
| Sum of 17 violent acts received, witnessed, or upon family | 0.04 [0.04] | 0.01 [0.04] | 0.01 [0.01] | -0.02 [0.01]* | 0.35 [0.07]*** | -0.03 [0.03] | 0.01 [0.01] | -16.06 [66.47] | -0.01 [0.01] | 0.00 [0.00]*** | 0.00 [0.01] |
| Sum of 8 violent acts perpetrated | 0.12 [0.06]* | -0.13 [0.09] | 0.01 [0.02] | 0.06 [0.02]** | 0.43 [0.14]*** | -0.02 [0.08] | 0.01 [0.02] | -203.96 [124.18] | 0.02 [0.02] | 0.00 [0.00]*** | 0.02 [0.02] |
| Gave orders to fighters | 1.48 [0.97] | -0.07 [0.81] | -0.33 [0.21] | -0.32 [0.16]* | -1.89 [1.29] | 0.92 [0.77] | 0.24 [0.09]** | 797.64 [1,450.86] | -0.29 [0.25] | | |
| Reported fighter as a primary or secondary role | -0.63 [0.44] | -0.21 [0.67] | -0.07 [0.13] | -0.11 [0.15] | -1.31 [0.72]* | -0.01 [0.43] | -0.16 [0.06]*** | 338.80 [1,859.73] | 0.04 [0.07] | | 0.05 [0.11] |
| Forced wife † | -0.78 [0.43]* | -0.62 [0.41] | -0.02 [0.10] | -0.16 [0.10] | -1.21 [0.48]** | 0.11 [0.24] | -0.04 [0.04] | -533.93 [426.03] | 0.03 [0.04] | | -0.10 [0.04]** |
| Forced mother † | 0.30 [0.50] | 0.55 [0.51] | -0.19 [0.12] | 0.16 [0.21] | 0.46 [0.99] | -1.11 [0.52]** | -0.04 [0.09] | 1264.67 [880.16] | 0.05 [0.05] | | 0.17 [0.22] |
| Education at the time of abduction | 0.11 [0.05]** | -0.08 [0.04]* | -0.03 [0.01]*** | 0.03 [0.01]* | 0.07 [0.09] | 0.92 [0.05]*** | 0.08 [0.01]*** | 33.61 [51.11] | 0.00 [0.01] | | 0.02 [0.01]** |
| In school at the time of abduction | 1.02 [0.19]*** | 0.08 [0.21] | -0.13 [0.08] | -0.02 [0.07] | -0.37 [0.35] | 1.98 [0.25]*** | 0.20 [0.07]*** | 798.94 [347.66]** | -0.02 [0.03] | | -0.13 [0.04]*** |
| Observations | 228 | 228 | 228 | 228 | 228 | 228 | 228 | 191 | 228 | 100 | 161 |

Robust standard errors in brackets, clustered by sampling location

All estimates weighted by inverse sampling probabilities and inverse attrition probabilities

Year and location of birth dummies and pre-war covariates are included in regressions but coefficients are not displayed

* significant at 10%; ** significant at 5%; *** significant at 1%

† coded as 0 if abducted for less than two weeks